

Title (en)
SYSTEM AND METHOD FOR AUTOMATIC DETECTION, LOCALIZATION, AND SEMANTIC SEGMENTATION OF ANATOMICAL OBJECTS

Title (de)
SYSTEM UND VERFAHREN ZUR AUTOMATISCHEN ERKENNUNG, ORTUNG UND SEMANTISCHEN SEGMENTIERUNG ANATOMISCHER OBJEKTE

Title (fr)
SYSTÈME ET PROCÉDÉ DE DÉTECTION AUTOMATIQUE, DE LOCALISATION ET DE SEGMENTATION SÉMANTIQUE D'OBJETS ANATOMIQUES

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Abstract (en)
[origin: WO2018009405A1] The present invention is directed to a system and method for automatic detection, localization, and semantic segmentation of at least one anatomical object in a parameter space of an image generated by an imaging system. The method includes generating the image via the imaging system and providing the image of the anatomical object and surrounding tissue to a processor. Further, the method includes developing and training a parameter space deep learning network comprising convolutional neural networks to automatically detect the anatomical object and the surrounding tissue of the parameter space of the image. The method also includes automatically locating and segmenting, via additional convolutional neural networks, the anatomical object and surrounding tissue of the parameter space of the image. Moreover, the method includes automatically labeling the identified anatomical object and surrounding tissue on the image. Thus, the method also includes displaying the labeled image to a user in real time.

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Cited by
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